Commonwealth of Kentucky
Division for Air Quality

PERMIT STATEMENT OF BASIS

CONDITIONAL MAJOR (DRAFT PERMIT) NO. F-06-043
ALSTOM POWER Service MWSC
ERLANGER, KY.
AUGUST 4, 2006
D. BRIAN Ballard, REVIEWER

SOURCE ID. #:	21-117-00176
SOURCE A.I. #:	49467
ACTIVITY #:	APE20060001

SOURCE DESCRIPTION:
Alstom Power Midwest Service Center is a power plant equipment servicing center. The activities include metal fabrication, machining operations, surface coating and welding. The air emissions sources at the facility are a paint booth and miscellaneous welding activities. The paint booth is designated as emission unit 1 (EU1) and welding activities are designated as insignificant activity 1.

EU1 is a spray booth. The booth's inside working dimensions are 20' wide x 14' high x 30' deep. The booth is equipped with an exhaust system able to produce 28,960 cubic feet per minute exhaust volume at 0.5" static pressure. The exhaust plenum is mounted in a rear arrestor design. Exhaust plenum mounts 20" x 20" x 2" fiberglass arrestor exhaust filter media in fifty (50) 20" x 20" x 2" filter frames with support grids. This results in a total filter area of approximately 139 square feet. The booth is equipped with one visual draft gauge to measure pressure differential across the arrestor exhaust media, for visual notification on the condition of exhaust filter media and the need to replace the filter media.

Miscellaneous welding emissions are controlled by an Amtech AT-28 cartridge dust collector or equivalent.

COMMENTS:
The emissions of VOC and volatile HAP from EU1 are calculated by material balance assuming the entire content of VOC and HAP in the coatings and solvents are emitted. The annual potential to emit estimates for the paint booth are based on 3,833 hours of operation per year and an application rate of 4.69 gallons per hour of coating. Emissions from clean up solvent use are based on a maximum usage rate of 1,796 gallons per year and 3,833 hours per year of operation. The paint booth potentially operates 3.5 hours out of every 8 hours due to process constraints. Emissions of particulate matter from the paint booth are calculated by material balance assuming that 75 percent of the coating is transferred to the parts and the remainder is captured by the booth exhaust and controlled by the exhaust filters. A control efficiency of 95 percent is assumed for the filters.

Emissions from welding are calculated using emission factors for gas metal arc welding (GMAW) from AP-42, Chapter 12, Section 12.19, Tables 12.19-1 and 12.19-2. The potential to emit from welding is based on a maximum electrode usage rate of 25.5 pounds per hour and 8,760 hours per year of operation.

EMISSION AND OPERATING CAPS DESCRIPTION:
The facility will be subject to federally enforceable emission caps of 20 tons per twelve-month rolling total for VOC and 9 tons of individual HAP per twelve month rolling total. The VOC emission limit will preclude the applicability of 401 KAR 59:225, New miscellaneous metal parts and products surface coating operations. The HAP emission limits will preclude the applicability of 401 KAR 63:002, § 3 (sss), incorporation by reference 40 CFR 63.3880 to 63.3981 (Subpart MMMM), "National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products."

PERIODIC MONITORING:
The following periodic monitoring shall be required.
The usage rate of coatings and solvent in gallons per month shall be monitored.
The monthly emissions of VOC and HAP shall be monitored.
A qualitative visual observation of the opacity of emissions from the paint booth stack shall be performed from the paint booth stack on a weekly basis during.
The condition of the booth filters shall be monitored by visual inspection of the draft pressure gauge daily (when painting is performed).

CREDIBLE EVIDENCE:
This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has only adopted the provisions of 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12 into its air quality regulations.